## CLAIMS

## I claim:

- 1. An improved method for installing new high rise construction utility waste and vent system plumbing stacks, the method comprising the steps:
  - locating the contract plumbing risers on the high rise contract plans and according to the high rise contract specifications;
  - determining optimum placement within the high rise contract plans of alternative plumbing risers for reduced material and labor costs, improved acoustical benefits, and improved structural benefits;
  - adjusting contract fixture alignment, if necessary, to facilitate optimum placement of alternative plumbing risers;
  - consolidating contract plumbing stacks into optimal groups and one stack;
  - locating the newly consolidated plumbing system stacks in the contract wall plans;
  - numbering the newly consolidated plumbing system stacks by number and type of materials used;
  - color coding the newly consolidated plumbing system stacks by types of materials used therein;
  - drawing up the newly consolidated plumbing system stacks

    with the waste riser flow lines consistently on the

    same stack side facing the stack placement in the wall;

- listing the materials for the newly consolidated plumbing system stacks;
- assigning proper box sizes to match up with the newly consolidated plumbing system stacks;
- checking the architectural drawings to verify proper clearance for the newly consolidated plumbing system stacks;
- applying for request for information for walls that may need to be widened to fit the newly consolidated plumbing system stacks;
- developing pre-fabrication drawings by types of material for each newly consolidated plumbing system stack;
- numbering each newly consolidated plumbing system stack;
- identifying any special stack in the newly consolidated plumbing system stacks;

finalizing pre-fabrication drawings;

- preparing a pre-fabrication book to coordinate main distribution piping to match up with the newly consolidated plumbing system stacks;
- establishing color coding to stack type within the newly consolidated plumbing system stacks;
- pre-labeling the construction job-site;
- installing the newly consolidated plumbing system stacks.
- 2. A kit for an improved system for installing new high rise construction utility waste and vent plumbing stacks, the kit further comprising in combination:

- in the high rise contract specifications;
- plumbing risers located in alternative positions than the risers according to the contract plans;
- contract fixture alignment, if necessary, to facilitate optimum placement of alternative plumbing risers;
- contract plumbing consolidated into optimal groups and one
   stack;
- newly consolidated plumbing system stacks located in the contract wall plans;
- newly consolidated plumbing system stacks organized by number and type of materials used and color coded accordingly;
- newly consolidated plumbing system stacks drawn into the contract plans for wall construction with the waste riser flow lines consistently on the same stack side facing the stack placement in the wall;
- newly consolidated plumbing system stacks specified by
   materials listing;
- newly consolidated plumbing system stacks placed within stack boxes;
- newly consolidated plumbing system stack boxes checked against the architectural plans, codes and specifications for clearance and other compliance;
- contract walls widened to fit the newly consolidated plumbing system stack boxes;

- pre-fabrication drawings by types of material for each newly consolidated plumbing system stack and/or stack boxes;
- number system for each newly consolidated plumbing system
   stack and/or stack boxes;;
- each special stack in the newly consolidated plumbing system stacks being identified;
- final pre-fabrication drawings for the plumbing system stacks and stack boxes;
- a pre-fabrication book to coordinate main distribution piping to match up with the newly consolidated plumbing system stacks;
- color coding to stack type within the newly consolidated plumbing system stacks;
- pre-fabricated plumbing system stacks and stack boxes; and construction job-site pre-labels coordinating installation of pre-fabricated plumbing system stacks and stack boxes by interval.
- 3. An improved apparatus for high rise construction utility waste and vent system plumbing stacks comprising:
  - a stack which comprises an upper end, a lower end, a right side facing the stack from inside the building, and a left side facing the stack from inside the building, and a plurality of segments;
  - a waste riser on one stack side;
  - a vent riser on the stack side opposite the waste riser, wherein waste riser and vent riser placement are

according to optimal plumbing layout;

- a plurality of connectors between the waste riser and the

  vent riser wherein the connectors are disposed either

  perpendicular to the vent riser and waste riser or at

  forty-five degree angles thereto with the vent riser

  attachment being higher relative to the waste riser

  attachment for each connector; and
- a plurality of branch pipes connected to one or more

  fixtures which discharge waste water, each of the

  branch pipes being further connected at one end thereof

  by fittings to the stack through one of the connectors

  to the vent riser and the waste riser.
- 4. The apparatus of claim 3 wherein branch pipes, connector fittings and connectors are molded into a stack of one unit at the junction of the waste riser and vent riser.
- 5. The apparatus of claim 4 wherein the molded stack unit is contained in a box wherein the box length is determined by the number of plumbing fixtures served by the box and the box width is determined by pipe diameter.
- 6. The apparatus of claim 5 wherein a plurality of boxes are correspondingly stacked vertically and interconnected to the desired interval level of high rise construction and wherein each interval has at least one box.
- 7. The apparatus of claim 3 wherein the connectors to the waste rise and vent riser are two inch diameter pipes on five inch center-lines.

- 8. The apparatus of claim 7 wherein the box is twenty-eight inches long and six inches wide.
- 9. The apparatus of claim 8 wherein the vent riser and waste riser are each four inches in diameter on a three inch center-line from each respective edge of the box.
- 10. The apparatus according to claim 3 wherein waste stack, vent stack, branch pipes, connector fittings and connectors are constructed of like materials wherein the materials are cast iron, high density polyethylene, or DWV (drainage, waste and vent) copper pipe.
- 11. The apparatus according to claim 6 wherein waste stack, vent stack, branch pipes, connector fittings and connectors are constructed of like materials wherein the materials are cast iron, high density polyethylene, or DWV (drainage, waste and vent) copper pipe.
- 12. The apparatus according to claim 9 wherein waste stack, vent stack, branch pipes, connector fittings and connectors are constructed of like materials wherein the materials are cast iron, high density polyethylene, or DWV (drainage, waste and vent) copper pipe.